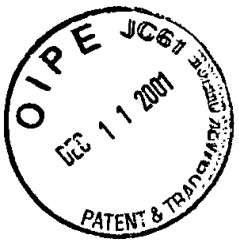
w/ppe #8



Serial Number 09/580,411

Clean new replacement pages which include the changes made.

1. (Twice Amended) A compensating blister die cutter apparatus including a base member,

at least first and second blister die cutter units supported by said base member,

each said blister die cutter unit comprising a

a support member carrying a steel rule die,

a lost motion connection connecting said support member to said base member permitting relative lateral movement of each die cutter unit relative to said base member and relative to each other through a range of 360 degrees.

2. (Twice Amended) A compensating blister die cutter apparatus including a base member,

at least first and second blister die cutter units supported by said base member,

each said blister die cutter unit comprising

a bottom board, a backup plate positioned on said bottom board,

a top board positioned on said backup plate,

a rule slot in said top board,

a steel rule in said rule slot and having a cutting edge,

a cavity formed in the central portion of said bottom board, backup plate and top board as assembled,

threaded members connecting the bottom board, backup plate and top board together to move as a unit,

vertical holes extending through the connected bottom board, backup plate and the top board and having a diameter of a given dimension,

adjustment members extending through said vertical holes and being threaded into said base member,

said adjustment members having a smaller diameter than said given dimension thus permitting lateral movement of said connected bottom board, backup plate and top board relative to said base member through a range of 360 degrees.

3. (Twice Amended) A compensating blister die cutter apparatus including

a base member,

at least first and second blister die cutter units supported by said base member,

each said blister die cutter unit comprising a top board,

a rule slot in said top board,

a steel rule in said rule slot and having a cutting edge,

a cavity formed in the central portion of said top board,

vertical holes extending through said top board and having a diameter of a given dimension,

adjustment members extending through said vertical holes and being connected to said base member,

and said adjustment members having a smaller diameter than said given dimension permitting movement of said blister die cutter unit relative to said base member through a range of 360 degrees.

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w/paper #8

Serial Number 09/580,411

Clean new replacement pages of pages four and six to correct errors in the replacement pages four and six submitted with the amendment of June 25, 2001.

how the adjustment members fit through the holes in the cutter structure.

Detailed Description of the Preferred Embodiment

The drawings illustrate the compensating die cutter apparatus of the present invention illustrated generally by the reference numeral 30 and which is seen in various of the views including Figs. 8 and 9 with the apparatus 30 being made up of (in the illustrated embodiment) six individual blister die cutter units identified by the reference numerals 34, 35, 36, 37, 38 and 39.

The problem which the present invention is designed to solve comes from the nature of the sheets of plastic material illustrated at 20 in Figs. 1-3 from which individual blisters are formed. The blisters in Figs. 1, 2 and 3 are identified by the reference numeral 22.

As is understood in the blister packaging industry, it is normal to form a plurality of blisters 22 on and from a sheet of polymeric material by forming a heated sheet of the polymeric material around individual molds which form the blisters 22. In this process the polymeric material is heated to a substantially high temperature, for example on the order of 400° F which allows the sheet 20 to more easily form over the individual molds and with the assistance normally of a vacuum the individual blisters 22 are formed. The sheet is then cooled and removed from the individual dies resulting in a sheet like that shown in Fig. 1. In the cooling process, a given batch of polymeric sheet material will shrink as it is cooled and will shrink irregularly. This results in the distance from individual center lines of the individual blisters being inconsistent. In most instances after a first group of blisters have been produced from a given batch of the polymeric sheet, the individual shrinkage will be somewhat consistent for subsequent sheets. When a manufacturer next goes to another batch of polymeric material the shrinkage will again, in most cases, be different and as usual inconsistent.

steel rule 54 within the rule slots 52 and keep the inside portion with the cavity in it from falling out. The rule has recesses 60 provided therein which closely straddle the bridges 58. Central holes in the top board, backup plate and bottom board form a cavity 62 to receive the individual blisters 22 during a cutting operation.

Threaded members 64 are provided and extend through holes 66 in the backup plate 46 and the top board 50 and are threadably received in threaded holes 68 in the bottom board 44 to hold the top board, backup plate and bottom board together fixedly as a unit.

Adjustment members 70 in the form of threaded members extend through holes 72 in the top board 50, backup plate 46 and bottom board 44 and threadably connect into threaded holes 74 in the base 31. The adjustment members 70 are fixedly secured in the base 31 and are of an outer diameter which is smaller than the diameter of the holes 72 in the top board, backup plate and bottom board. This permits the blister die cutter units to move relative to the base 31. The top board, backup plate, bottom board and associated structure comprise a support member and the member 70 of a smaller diameter than holes 72 amounts to a lost motion connection connecting the support member to the base 31.

The construction of each of the blister die cutter units 34-39 as shown in Figs. 8 and 9 is identical and each is mounted to the base 31 in the same fashion. Fig. 8 illustrates the blister die cutter units 34-39 mounted on the base with identical spacing between the edges of the units. This identical spacing has been indicated by the reference numeral 77.

This spacing as a matter of example only may be on the order of 1/16" to 1/8". Fig. 14 is an enlarged fragmentary view showing the members 70 and their position in openings 72 and as